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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/580,028

05/19/2006

Heinz Werner Busch

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EXAMINER

KILPATRICK, BRYAN T

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/580,028	Applicant(s) BUSCH ET AL.	
	Examiner BRYAN T. KILPATRICK	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-72 is/are pending in the application.
- 4a) Of the above claim(s) 1-38 and 63-71 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 39-62 and 72 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/19/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Summary

This is the initial Office action based on the application 10/580,028 PCT filed November 18, 2004. Claims 39-72 are pending and have been fully considered. Claims 1-38 are cancelled.

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 39-62 and 72, drawn to an apparatus having a light source, light detection, and a titration system.

Group II, claim(s) 63-71, drawn to a method having a crystallization system.

The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The special technical feature of Group I is the combination of a light source and detection component with a titration system. The use of the combination cannot be a special technical feature under PCT Rule 13.2 because the combination is known in

Art Unit: 1797

prior art. U.S. Patent 3,481,707 (BRODKORB et al.) discloses in the Abstract the use of a colorimetric apparatus using titration with a light source and light sensing system comprised of color filters, photoelectric cells, and the monitoring of potential.

Applicant's election without traverse of **Group I, claims 39-62 and 72** in the reply filed on November 24, 2008 is acknowledged. Claims 63-71 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on November 24, 2008.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 62 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 62 recites the limitation "a method for examining a liquid sample by titration" in lines 1-3. There is insufficient antecedent basis for this limitation in the claim. Claim 39 recites a titration system for adding a titration liquid into a sample, but does not mention analysis using titration.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 39-62 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,402,241 (**A. JEANNOTTE et al.**) in view of U.S. Patent 5,181,082 (**JEANNOTTE et al.**).

Instant claim 39 recites an apparatus comprised of a light source, light sensor, a measuring head having an optical fiber and recess, a titration system, and a drive device. Instant claim 62 recites a method of examining a liquid sample by titration. A. JEANNOTTE et al. discloses light from a radiant energy source in line 1 of column 3, a radiant energy detector in line 5 of column 3, a probe in Figures 1 through 20 (similar to the measuring head) that has fiber optics first disclosed in lines 34-37 of column 2, and ports (similar to the recess) are disclosed in line 68 of column 6. A drive device for moving the measuring head is anticipated by the mount adaptable probe disclosed in

Art Unit: 1797

line 51 of column 8. A. JEANNOTTE et al. does not explicitly disclose a titration system. However, JEANNOTTE et al. discloses the use of a titration analyzer in the Abstract. At the time of the invention, it would have been obvious to one of ordinary skill in the art to use the probe of A. JEANNOTTE et al. with the titration system of JEANNOTTE et al. for the purpose of measuring free fatty acid content in edible oil as disclosed in the Abstract of JEANNOTTE et al.

Instant claim 40 recites a system for measuring pH. Instant claim 41 recites a system for measuring temperature. JEANNOTTE et al. discloses pH observation in lines 10-21 of column 15 and temperature observation in lines 16-23 of column 10.

Instant claim 42-43 recites a fluidics system for moving an amount of liquid for examination and calibrating with a liquid, respectively. JEANNOTTE et al. discloses in lines 41-47 of column 4 a sample chamber with vent ports, drain ports, and valves for moving fluids. JEANNOTTE et al. discloses calibrating with a liquid in lines 21-31 of column 15.

Instant claim 44 recites a fluidics system with a cleaning means. A. JEANNOTTE et al. discloses improvements that enable easy cleaning in lines 65-67 of column 3.

Instant claim 45 recites an exchangeable sample vessel for receiving liquid samples. A. JEANNOTTE et al. discloses a process vessel in line 10 of column 3.

Instant 46 recites a sample-receiving region where the sample vessel can be arranged below the measuring head. JEANNOTTE et al. discloses in Figures 16-18 a probe lowered into a vessel located beneath it.

Art Unit: 1797

Instant claim 47 recites a sample-receiving region constructed of stainless steel, titanium oxide, or stainless steel with titanium oxide coating. A. JEANNOTTE et al. discloses the sample fluid can be provided in a vessel or line (pipe) in lines 1 of column 12. Examiner take the position that the line or vessel disclosed by the prior art is not limited to any particular metal or nonmetal material absent any contrary evidence.

Instant claim 48 recites the sample-receiving region has a device that disinfects using UV light. The optical probe of disclosed by A. JEANNOTTE et al. in the Title and Abstract radiates UV light that capable of disinfect material.

Instant claim 49 recites a rotatable sample plate with an indirect drive for the sample vessel. A. JEANNOTTE et al. discloses a natural process vessel in line lines 9-10 of column 3 and lines 32-40 of column 14 disclose a technique for mixing a fluid sample in the probe sample chamber and bulk sample in a vessel.

Instant claim 50 recites the measuring head is a disposable article. A. JEANNOTTE et al. discloses in lines 27- 29 of column 1 improvements used to improve maintainability of the probe, which anticipates the disposal of the probe.

Instant claim 51 recites a device that detects a measuring head has been used. JEANNOTTE et al. discloses a radiant energy detector in line 37 of column 3. Examiner takes the position that the detector needs the probe or measuring head in order to function.

Instant claim 52 recites a holding device for holding on a socket. Instant claim 53 recites an integral connection component with a set of breaking point as a holding

Art Unit: 1797

means. A. JEANNOTTE et al. discloses the use of connecting segments using a sealing manner such as welding or adhesives in lines 7-11 of column 6.

Instant claim 54 recites a measuring head that conveys light received from the light source to the light sensor. Instant claim 55 recites the measuring head conveys light received by the light source along a light path adjacent to which the sensor is arranged. Instant claim 56 recites a recess is a part of a determining device. Instant claim 57 recites the fluid duct of a fluidic system is in the measuring head. Instant claim 58 recites the fluid duct has a sealing stopper. Instant claim 72 recites a measuring head with a recess that reduces inaccuracy of measurements. A. JEANNOTTE et al. discloses in line 63 of column 2 through line 5 of column 3 a probe that directs light off-axis from a radiant energy source to a sample chamber where the light interacts with a test fluid, and then is detected by a radiant energy detector. A. JEANNOTTE et al. discloses upper and lower vent and drain ports, and a valve means for closing the lower side port or ports in lines 58-64 of column 3. A. JEANNOTTE et al. discloses improvements in efficiency and reliability to the claimed probes in Technical Field section, lines 14-29 column 1.

Instant claim 59 recites the titration system has a fluid duct in the measuring head. JEANNOTTE et al. discloses the use of a titration analyzer in the Abstract. JEANNOTTE et al. discloses in lines 41-47 of column 4 a sample chamber with vent ports, drain ports, and valves for moving fluids.

Art Unit: 1797

Instant claim 60 recites a stirring device for stirring the liquid sample. A. JEANNOTTE et al. discloses in lines 32-40 of column 14 a technique for mixing a fluid sample in the probe sample chamber and bulk sample in a vessel.

Instant claim 61 recites a flow blade as a flow component. A. JEANNOTTE et al. discloses in lines 40-49 of column 14 the use of a chamber wall with a flowing fluid as well as a stilling valve to affect a flowing fluid to reduce disturbances caused by bubbles.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRYAN T. KILPATRICK whose telephone number is (571)270-5553. The examiner can normally be reached on Mon - Thurs, 7:00 am - 4:30 pm; Fri, 7:00 am - 11:00 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571)272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1797

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Samuel P Siefke/
Primary Examiner, Art Unit 1797

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